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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/668,216	09/24/2003	Yasuhiro Yoneda	1422-0603P	1568
2292 7590 05/02/2008 BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747				
EXAMINER MARCHESCHI MICHAEL A				
ART UNIT		PAPER NUMBER		
1793				
NOTIFICATION DATE		DELIVERY MODE		
05/02/2008		ELECTRONIC		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

Office Action Summary

Application No.

10/668,216

Applicant(s)

YONEDA ET AL.

Examiner

Michael A. Marcheschi

Art Unit

1793

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 March 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Applicant Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 4/10/08
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1-10 are rejected under 35 U.S.C. 103(a) as being obvious over EP 1 020 501 in view of Liu et al. and/or Ina et al. and further in view of Taira et al. (216) for the same reasons set forth in the previous office action which are incorporated herein by reference.

Applicant's arguments filed 3/21/08 have been fully considered but they are not persuasive.

Applicants argue that the prior art (specifically the EP reference) does not teach inorganic particles in combination with organic particles of the claimed sizes which also meet the formula of claim 1. The examiner disagrees because, as defined in the previous office action, the EP reference clearly teaches (1) the claimed sizes of inorganic particles (i.e. the EP reference states that the size of the inorganic particles (colloidal silica being obvious and this aspect is not argued, thus it can be reasonably presumed that a prima facie case of obviousness has fully been established with respect to this aspect) being literally defined as greater than 0.05 microns (greater than 50 nm), as disclosed on page 9, line 22, and the size of the polymer particles is disclosed as literally being at least 100 nm. In view of this, it can be seen that the reference discloses literal size values that fall within the claimed range. With respect to the claimed relationship, the EP reference clearly discloses that the size of the polymer particles D_p is not more than the size of the inorganic particles D_i (see [0054]-i.e. $D_p < D_i$) or the contrary version. In view of this, the D_p value will be $< D_i + 50$, thus meeting the claimed formula. In

addition, from the above literally values $D_p(100\text{ nm}) \leq D_i((\text{greater than } 50\text{ nm}) + 50\text{ nm})$, thus if the D_i is always greater than 50 nm, the claimed criteria will be clearly met. Although the above sizes are used for the purpose of this action, other sizes can be apparent. For example, the EP reference literally discloses inorganic size values that read on the claimed values (i.e. 50 nm as defined in section [0055] and 120 nm as defined in section [0059]). Although not argued, the reference also teaches ranges for the individual inorganic and polymer particles (see section [0062]) and these amounts broadly encompass the claimed amounts.

Applicants further state that even if a hypothetical case of obviousness were assumed, the present specification demonstrates unexpected results. First, the obviousness is not based on a hypothetical case because (1) the claimed sizes are clearly and literally disclosed by the reference and (2) the claimed relationship of sizes defined by the reference clearly meets the claimed formula, thus the clear and explicit teachings of this reference rebut any "hypothetical" arguments presented because the sizes and relationship are not assumptions but reality in what the reference teaches.

Applicants also argue that the present specification also established unexpected results and refer the examiner to figure 2 and tables 2-3, specifically comparison between certain examples and comparative examples defined on page 9 of the response. With respect to figure 2, the examiner is aware of this figure and what it shows, however, this figure does not clearly show unexpected results because (1) the results are not commensurate in scope with the broad ranges as claimed (i.e. the results do not fully establish that any and all individual particle sizes and individual particle amounts, when used in any and all combinations within the scope of the instant claims will provide the same results as obtained in this figure) and (2) it is fully clear that

E1, E6 and E7, which are all outside the scope of the instant claims in terms of the inorganic size, provide the same results as E2, E3, E5, E8, E9, E10 and E11 in that the polishing rate is increased in all these examples. Since E1, E6 and E7 provide the same results (increase in polishing rate) as the other examples (E2, E3, E5, E8, E9, E10 and E11), the examiner is unclear as to how criticality is shown only for the claimed sizes, especially since sizes outside the claimed ranges are known to also increase the polishing rate. It would appear that figure 2, when viewed as a whole, clearly rebuts any evidence that only the claimed sizes are unexpected. With respect to table 2, the comparative examples are ones that contain no polymer particles, however the EP reference clearly contains polymer particles, thus this table is not comparing the claimed invention with the teachings of the prior art. With respect to table 3, the examiner is aware of this data and what it shows, however, the data in this table does not clearly show unexpected results because (1) the results are not commensurate in scope with the broad ranges as claimed (i.e. the results do not fully establish that any and all individual particle sizes and individual particle amounts, when used in any and all combinations within the scope of the instant claims will provide the same results as obtained in the examples literally defined) and (2) it is fully clear that comparative example 9, which is outside the scope of the claimed invention (formula not met) produces a composition with an increased polishing rate (polishing rate for comparative example 9 is 200 nm/min) over Ex. 8, which has a polishing rate of 190 nm/min. Since comparative example 9 provides a better polishing rate when compared to example 8, the examiner is unclear as to how criticality is shown only for the claimed limitations, especially since limitations outside the claimed range are known to also increase the polishing rate. It

would appear that comparative example 9, when viewed as a whole, clearly rebuts any evidence that only the claimed limitations are unexpected.

In summary, in view of the EP reference literally teaching the claimed size values, it is the examiners position that reliance on unexpected results of the claimed range can not be properly established and even if this can be clearly shown, it must be shown for any and all combinations, as claimed, and applicants selection of only a few points with the broad range is not a full showing that the claimed composition produces critical results over any and all combinations, as claimed. In other words, the evidence relied upon is insufficient to overcome the rejection of claims based on the above rejection because: the data provided therein (1) does not show criticality for the entire broad claimed values including the pH range (data does not show endpoints of the claimed range, etc.) in any and all possible combinations as would be apparent from the claims, (2) the data provided therein does not show criticality for the entire inorganic particle size range (data does not shown endpoints of the claimed range, etc.), (3) the data defined is for compositions containing defined amounts of inorganic and organic particles, yet the instant claims define broad amount, thus the results are not commensurate in scope with the broad amount claimed and (4) the data defined is for compositions that use specific types of polymers and thus do not show that any and all polymers within the scope of thermoplastic or thermosetting resins will yield the desired results (the results show no basis for interpreting that any and all polymers within the scope of the claims will provide the same results).

Applicants also argue that the EP reference teaches away from the claimed invention in sections [0057], [0059] and comparative example 2. The examiner acknowledges these

teachings, however, any arguments based on the “teaching away” aspect are not convincing for the following reasons (reasons 1-4) defined below.

(1) disclosed examples and preferred embodiments (“preferably” and “particularly” are viewed as teaching preferred embodiments) do not constitute a teaching away from a broader disclosure or nonpreferred embodiments. In re Susi, 440 F.2d 442, 169 USPQ 423 (CCPA 1971).

(2) a known or obvious composition does not become patentable simply because it has been described as somewhat inferior to some other product for the same use. In re Gurley, 27 F.3d 551, 554, 31 USPQ2d 1130, 1132 (Fed. Cir. 1994)

(3) the prior art’s mere disclosure of more than one alternative does not constitute a teaching away from any of these alternatives because such disclosure does not criticize, discredit, or otherwise discourage the solution claimed....” In re Fulton, 391 F.3d 1195, 1201, 73 USPQ2d 1141, 1146 (Fed. Cir. 2004); and

(4) according to the Intellectual Property Law glossary, “teaching away” is defined as “the situation in which the prior art reference suggests that the claimed invention is not possible”.

In addition, it is well established that a reference can be used for all it realistically teaches and the reference realistically teaches the claimed size (i.e. literally teaches at least one of the claimed size values). In fact, if the argued sizes would not work, the examiner is unclear as to why the reference literally defined them as being the sizes applicable for the particles defined in said reference and within the scope of the reference invention.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael A. Marcheschi whose telephone number is (571) 272-1374. The examiner can normally be reached on M-F (8:00-5:30) First Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jerry Lorengo can be reached on (571) 272-1233. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Michael A Marcheschi/
Primary Examiner, Art Unit 1793